

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	2	us-20040197705-\$.did.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/17 12:03
L2	6	("4743530" or "4743531" or "5329019").pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/17 12:08
L3	414	(squarene or squarilium) with (cyanine or cryptocyanine)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/17 12:13
L4	422	(squarene or squarilium) with (cyanine or cryptocyanine or indolen\$6 or benzoindolen\$6)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/17 12:38
L5	357	I4 and @ad<"20040330"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/17 13:46
L6	223	(squarene or squarilium) and ((optical or laser or information) near5 (medium or media or disk or disc)).ti, ab,clm.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/17 13:46
L7	71	I6 not I5	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/17 12:48
L8	1	548/490.ccls. and (squarine or squarilium)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/17 13:16
L9	64	((squarine or squarilium) near5 (dye or compound)).clm.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/17 12:52

## EAST Search History

L10	1	548/490.ccls. and (squaric or (cyclobutene adj2 (dione or one)))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/17 14:37
L11	46	(asymmetric\$4 or unsymmetric\$6) near5 (squarine or squarilium or squaric or (cyclobutene adj2 (dione or one)))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/17 13:52
L12	12	("5795981" or "5656750" or "5492795" or "4677045" or "5237498" or "5354873").pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/17 13:39
L13	2	"4175956".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/17 13:39
L14	37	(squarene or squarilium) and (filter).ti, ab,clm.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/17 13:56
L15	27	l14 and @ad<"20040330"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/17 13:46
L16	1255	(cyanine) and (filter).ti,ab,clm.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/17 13:53
L17	399	((asymmetric\$4 or unsymmetric\$6) near5 cyanine)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/17 13:52
L18	8	l17 and (filter).ti,ab,clm.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/17 13:53
L19	25	(squarene or squarilium) same (display or filter)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/17 14:56

## EAST Search History

L20	14	(squarene or squarilium) and (display or filter)	EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/17 14:35
L21	40	(filter or display) and (squaric or (cyclobutene adj2 (dione or one)))	EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/17 14:44
L22	38	l21 not l20	EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/17 14:38
L23	72	(squaric or (cyclobutene adj2 (dione or one))) and ((optical or laser or information) near5 (medium or media or disk or disc))	EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/17 14:57
L24	46	l23 not l22	EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/17 14:54
L25	2	jp-03188063-\$.did.	EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/17 14:54
L26	139	(squarylium) same (display or filter)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/17 14:57
L27	157	(squarylium) and ((optical or laser or information) near5 (medium or media or disk or disc))	EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/17 14:57
L28	76	(squarylium) same (display or filter)	EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/17 14:57
L29	212	(l27 or l28)	EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/17 14:58

\$%^STN;HighlightOn= \*\*\*;HighlightOff=\*\*\* ;

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NEWS 11 SEP 28 CEABA-VTB classification code fields reloaded with new  
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NEWS 12 OCT 19 LOGOFF HOLD duration extended to 120 minutes  
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8.01c now available  
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with preparation role  
  
NEWS EXPRESS NOVEMBER 10 CURRENT WINDOWS VERSION IS V8.01c, CURRENT  
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FULL ESTIMATED COST

0.21

0.21

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=> s us 2004-0197705/pn  
L1 1 US 2004-0197705/PN  
(US2004197705/PN)

=> file reg		
COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	2.41	2.62

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=> tra rn l1  
L2 TRANSFER L1 1- RN : 11 TERMS  
L3 11 L2

=> d scan

L3 11 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN  
IN Cyclobutenediylum, 1-(1-methyl-1H-indol-3-yl)-2,4-dihydroxy-3-[(3-methylspiro[1H-benz[e]indole-1,1'-cyclohexan]-2(3H)-ylidene)methyl]-, bis(inner salt) (9CI)  
MF C32 H28 N2 O2

/ Structure 1 in file .gra /

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 11 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN  
IN Cyclobutenediylum, 1-[(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)methyl]-3-(5-fluoro-2-methyl-1H-indol-3-yl)-2,4-dihydroxy-, bis(inner salt) (9CI)  
MF C25 H21 F N2 O2

/ Structure 2 in file .gra /

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 11 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN  
IN Cyclobutenediylum, 1-[(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)methyl]-2,4-dihydroxy-3-(1-methyl-1H-indol-3-yl)-, bis(inner salt) (9CI)  
MF C25 H22 N2 O2

/ Structure 3 in file .gra /

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 11 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN  
IN Cyclobutenediylum, 1-[[1,3-dihydro-3,3-dimethyl-1-(3-methylbutyl)-2H-indol-2-ylidene]methyl]-2,4-dihydroxy-3-(1-methyl-1H-indol-3-yl)-, bis(inner salt) (9CI)  
MF C29 H30 N2 O2

/ Structure 4 in file .gra /

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 11 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN  
IN Cyclobutenediylum, 1-[[1,3-dihydro-3,3-dimethyl-1-(3-methylbutyl)-2H-indol-2-ylidene]methyl]-2,4-dihydroxy-3-[1-(3-methylbutyl)-1H-indol-3-yl]-, bis(inner salt) (9CI)  
MF C33 H38 N2 O2

/ Structure 5 in file .gra /

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 11 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN

IN Cyclobutenediylum, 1-[(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)methyl]-2,4-dihydroxy-3-(1H-indol-3-yl)-, bis(inner salt) (9CI)  
MF C24 H20 N2 O2

/ Structure 6 in file .gra /

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HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 11 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN  
IN Cyclobutenediylum, 1-[(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)methyl]-2,4-dihydroxy-3-[2-methyl-1-(3-methylbutyl)-5-nitro-1H-indol-3-yl]-, bis(inner salt) (9CI)  
MF C30 H31 N3 O4

/ Structure 7 in file .gra /

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 11 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN  
IN Cyclobutenediylum, 1-(5-chloro-1-methyl-1H-indol-3-yl)-3-[[1,3-dihydro-3,3-dimethyl-1-(3-methylbutyl)-2H-indol-2-ylidene]methyl]-2,4-dihydroxy-, bis(inner salt) (9CI)  
MF C29 H29 Cl N2 O2

/ Structure 8 in file .gra /

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HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

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IN Cyclobutenediylum, 1-[(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)methyl]-2,4-dihydroxy-3-[1-(3-methylbutyl)-1H-indol-3-yl]-, bis(inner salt) (9CI)  
MF C29 H30 N2 O2

/ Structure 9 in file .gra /

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 11 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN  
IN Cyclobutenediylum, 1-[(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)methyl]-2,4-dihydroxy-3-(1-methyl-2-phenyl-1H-indol-3-yl)-, bis(inner salt) (9CI)  
MF C31 H26 N2 O2

/ Structure 10 in file .gra /

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HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

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MF C26 H24 N2 O2  
CI CCS

/ Structure 11 in file .gra /

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1 IS NOT A RECOGNIZED COMMAND  
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=> s 13  
L4 3 L3

=> d all 1-3

L4 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN  
AN 2004:822900 CAPLUS <<LOGINID::20061117>>  
DN 141:340488  
ED Entered STN: 08 Oct 2004  
TI Cyanine compound for optical filter and optical recording medium  
IN Shimizu, Masaaki; Shigeno, Koishi; Yano, Toru  
PA Asahi Denka Co., Ltd., Japan  
SO Eur. Pat. Appl., 22 pp.

CODEN: EPXXDW  
 DT Patent  
 LA English  
 IC ICM C09B057-00  
 ICS G02B005-00; G11B007-24; C07D209-12  
 CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1464678	A1	20041006	EP 2004-8244	20040405
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
	JP 2004315789	A2	20041111	JP 2004-35683	20040212
	US 2004197705	A1	20041007	US 2004-812179	20040330
	KR 2004086845	A	20041012	KR 2004-23215	20040403
	CN 1535965	A	20041013	CN 2004-10034232	20040405
PRAI	JP 2003-101725	A	20030404		
	JP 2004-35683	A	20040212		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
EP 1464678	ICM	C09B057-00
	ICS	G02B005-00; G11B007-24; C07D209-12
	IPCI	C09B0057-00 [ICM,7]; G02B0005-00 [ICS,7]; G11B0007-24 [ICS,7]; C07D0209-12 [ICS,7]; C07D0209-00 [ICS,7,C*]
	IPCR	G03F0007-004 [I,C*]; G03F0007-004 [I,A]; C07D0209-00 [I,C*]; C07D0209-12 [I,A]; C07D0209-96 [I,A]; C09B0023-00 [I,C*]; C09B0023-00 [I,A]; C09B0057-00 [I,C*]; C09B0057-00 [I,A]; G02B0005-22 [I,C*]; G02B0005-22 [I,A]; G11B0007-24 [I,C*]; G11B0007-248 [I,A]
	ECLA	C07D209/12; C09B057/00S; G11B007/248
JP 2004315789	IPCI	C09B0023-00 [ICM,7]; C07D0209-12 [ICS,7]; C07D0209-96 [ICS,7]; C07D0209-00 [ICS,7,C*]; G02B0005-22 [ICS,7]; G03F0007-004 [ICS,7]
	IPCR	C07D0209-00 [I,C*]; C07D0209-12 [I,A]; C09B0057-00 [I,A]; C09B0057-00 [I,C*]; G11B0007-24 [I,C*]; G11B0007-248 [I,A]
	FTERM	2H025/AA10; 2H025/AA11; 2H025/AB13; 2H025/AB14; 2H025/AB17; 2H025/AD01; 2H025/AD03; 2H025/CC13; 2H048/CA04; 2H048/CA14; 2H048/CA19; 4C204/BB05; 4C204/BB09; 4C204/CB03; 4C204/CB27; 4C204/DB16; 4C204/EB02; 4C204/EB03; 4C204/FB01; 4C204/FB03; 4C204/GB01; 4C204/GB24; 4H056/CA01; 4H056/CC02; 4H056/CC08; 4H056/CE03; 4H056/CE07; 4H056/DD03; 4H056/FA05
US 2004197705	IPCI	G11B0007-26 [ICM,7]; C07D0209-04 [ICS,7]; C07D0209-00 [ICS,7,C*]
	IPCR	C07D0209-00 [I,C*]; C07D0209-12 [I,A]; C09B0057-00 [I,A]; C09B0057-00 [I,C*]; G11B0007-24 [I,C*]; G11B0007-248 [I,A]
	NCL	430/270.200; 369/284.000; 428/064.800; 430/007.000; 430/270.210; 430/945.000; 548/469.000
	ECLA	C07D209/12; C09B057/00S; G11B007/248
KR 2004086845	IPCI	C07D0403-10 [ICM,7]; C07D0403-00 [ICM,7,C*]
CN 1535965	IPCI	C07D0403-12 [ICM,7]; C07D0403-00 [ICM,7,C*]; G03G0005-00 [ICS,7]
	IPCR	G03F0007-004 [I,C*]; G03F0007-004 [I,A]; C07D0209-00 [I,C*]; C07D0209-12 [I,A]; C07D0209-96 [I,A]; C09B0023-00 [I,C*]; C09B0023-00 [I,A]; C09B0057-00 [I,C*]; C09B0057-00 [I,A]; G02B0005-22 [I,C*]; G02B0005-22 [I,A]; G11B0007-24 [I,C*]; G11B0007-248 [I,A]
	ECLA	C07D209/12; C09B057/00S; G11B007/248

OS MARPAT 141:340488  
 GI

AB Disclosed are a cyanine compd. of formula I (ring A = benzene or naphthalene; R1, R2 = H, halogen, nitro, cyano, C1-8-alkyl, C1-8-alkoxy, C6-30-aryl; R3 = H, C1-8-alkyl, C6-30-aryl; X = O, S, Se, -CR4R5-, -NH-, -NY'-; Y1, Y2 = H, C1-30-org. group; R4, R5 = C1-4-alkyl or benzyl; R4 and R5 are taken together to form C3-6-cycloalkane-1,1-diyl; and Y' = C1-30-org. group), an optical filter contg. the cyanine compd., and an optical recording material contg. the cyanine compd. which is used to form an optical recording layer of an optical recording medium. The object of the present invention is to provide a cyanine compd. excellent in resistance to light and heat and suited as an optical element for use in an optical filter of image display devices or in a laser optical recording material.

ST cyanine compd optical filter recording medium liq crystal display

IT Liquid crystal displays

(cyanine compd. for optical filter and)

IT Optical filters

Optical recording materials

(cyanine compd. for optical filter and optical recording medium)

IT \*\*\*72907-71-2P\*\*\* \*\*\*769939-93-7P\*\*\* \*\*\*769939-94-8P\*\*\*

\*\*\*769939-96-0P\*\*\* \*\*\*769939-97-1P\*\*\* \*\*\*769939-99-3P\*\*\*

\*\*\*769940-00-3P\*\*\* \*\*\*769940-01-4P\*\*\* \*\*\*769940-02-5P\*\*\*

RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(cyanine compd. for optical filter and optical recording medium)

IT \*\*\*769939-95-9\*\*\* \*\*\*769939-98-2\*\*\*

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(cyanine compd. for optical filter and optical recording medium)

L4 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2001:829685 CAPLUS <<LOGINID::20061117>>

DN 136:135067

ED Entered STN: 15 Nov 2001

TI Energetics of electron-transfer reactions of photoinitiated polymerization: dye-sensitized fragmentation of N-alkoxypyridinium salts

AU Gould, Ian R.; Shukla, Deepak; Giesen, David; Farid, Samir

CS Department of Chemistry and Biochemistry, Arizona State University, Tempe, AZ, 85287, USA

SO Helvetica Chimica Acta (2001), 84(9), 2796-2812

CODEN: HCACAV; ISSN: 0018-019X

PB Verlag Helvetica Chimica Acta

DT Journal

LA English

CC 35-3 (Chemistry of Synthetic High Polymers)

AB Electron transfer from excited dyes to N-alkoxypyridinium salts leads to reductive cleavage of the N-O bond to give an alkoxy radical that can be used to initiate polymn. The bond-dissocn. energy (BDE) obtained from calcns. based on d.-functional theory were in agreement with predictions from a thermochem. cycle. These data show a difference of ca. 290-315 kJ/mol between the BDE of the pyridinium and that of the pyridyl radical and indicate that the fragmentation of the radical is highly exothermic. The energetic requirements for the photochem. electron transfer are discussed in terms of a simplified model that shows that the initiation efficiency of the radical polymn. can be correlated with a single parameter, the redn. potential of the sensitizing dye. Dyes, including cyanine, styrylpyridinium, rhodamine, squarylium, coumarin, oxanol, with absorption bands spanning the entire visible region were effective in initiating photopolymn. of acrylate monomers in this system. The photoresponse can be doubled through coupling of the reductive cleavage of the N-alkoxypyridinium with oxidative cleavage of the C-B bond of an alkyltriarylborate, a process that utilizes the chem. potential stored in the oxidized dye following electron transfer to the pyridinium salt.

ST dye photoexcitation bond cleavage radical electron transfer; initiator radical polymn dye fragmentation alkoxy pyridinium salt; bond dissocn energy radical polymn alkoxy pyridinium initiator

IT Alcohols, preparation

RL: CAT (Catalyst use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)

(aliph., radicals; energetics of electron-transfer in dye-sensitized radical formation in N-methoxy-phenylpyridinium fluoroborate initiator system in photopolymn. of acrylic monomers)

IT Pyridinium compounds

RL: CAT (Catalyst use); CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)

(alkoxy; energetics of electron-transfer in dye-sensitized radical formation in N-methoxy-phenylpyridinium fluoroborate initiator system in photopolymn. of acrylic monomers)

IT Bond cleavage

Bond energy

Cyanine dyes

Dyes

Photoexcitation

Reduction potential

(energetics of electron-transfer in dye-sensitized radical formation in N-methoxy-phenylpyridinium fluoroborate initiator system in photopolymn. of acrylic monomers)

IT Electron transfer

(photochem.; energetics of electron-transfer in dye-sensitized radical formation in N-methoxy-phenylpyridinium fluoroborate initiator system in photopolymn. of acrylic monomers)

IT Polymerization catalysts

(radical; energetics of electron-transfer in dye-sensitized radical formation in N-methoxy-phenylpyridinium fluoroborate initiator system in photopolymn. of acrylic monomers)

IT 65-61-2, Acridine Orange 92-32-0, Pyronine Y 117-92-0 514-73-8

989-38-8, Rhodamine 6G 2390-63-8, Rhodamine 3B 3071-70-3 12243-46-8

14806-50-9 19764-96-6 25470-94-4 36536-22-8 38215-36-0

41044-12-6 47367-75-9, Oxazine 1 53213-82-4 53336-12-2 54290-14-1

60311-02-6 61105-56-4 63123-42-2, N-Methoxy-4-phenylpyridinium

tetrafluoroborate 68842-65-9 \*\*\*72907-71-2\*\*\* 80566-27-4

83846-70-2 98766-45-1 105802-46-8 116450-33-0 116450-35-2

116450-36-3 116450-37-4 116450-42-1 116450-44-3 116450-56-7

121956-74-9 154078-27-0 217963-75-2 389104-49-8 393178-09-1

RL: CAT (Catalyst use); CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)

(energetics of electron-transfer in dye-sensitized radical formation in N-methoxy-phenylpyridinium fluoroborate initiator system in photopolymn. of acrylic monomers)

IT 389104-50-1P

RL: PNU (Preparation, unclassified); PREP (Preparation)

(energetics of electron-transfer in dye-sensitized radical formation in N-methoxy-phenylpyridinium fluoroborate initiator system in photopolymn. of acrylic monomers)

IT 18525-99-0

RL: CAT (Catalyst use); USES (Uses)

(inhibitor; energetics of electron-transfer in dye-sensitized radical formation in N-methoxy-phenylpyridinium fluoroborate initiator system in photopolymn. of acrylic monomers)

IT 122644-44-4

RL: NUU (Other use, unclassified); USES (Uses)

(polymn. medium binder; energetics of electron-transfer in dye-sensitized radical formation in N-methoxy-phenylpyridinium fluoroborate initiator system in photopolymn. of acrylic monomers)

RE.CNT 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

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L4 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1980:102316 CAPLUS <<LOGINID::20061117>>

DN 92:102316

ED Entered STN: 12 May 1984

TI Electrophotosensitive materials for migration imaging processes

IN Haley, Neil F.; Krutak, James J.; Ott, Robert J.

PA Eastman Kodak Co., USA

SO U.S., 15 pp.

CODEN: USXXAM

DT Patent

LA English

IC G03G017-04

INCL 430037000

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4175956	A	19791127	US 1978-876795	19780210
PRAI	US 1978-876795	A	19780210		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 4175956	IC	G03G017-04
	INCL	430037000
	IPCI	G03G0017-04; G03G0017-00 [C*]
	IPCR	C09B0023-00 [I,C*]; C09B0023-01 [I,A]; C09B0057-00 [I,A]; C09B0057-00 [I,C*]; G03G0017-00 [I,C*]; G03G0017-04 [I,A]
	NCL	430/037.000; 544/302.000; 546/098.000; 546/112.000; 546/173.000; 546/191.000; 548/305.400; 548/365.100; 548/455.000; 548/518.000; 549/069.000

GI

/ Structure 13 in file .gra /

AB Electrophotosensitive compds. having the formula I(Z, Z1 = the atoms necessary to form a monovalent or divalent substituted or unsubstituted 5 to 13 member heterocycle contg. O or N or a substituted 5 to 10 member satd. or unsatd. carbocycle; R = H, alkyl, aryl, CN or carboxy ester; m = 0-1; n = 0-3) are described which are esp. useful in electrophoretic imaging dispersions to produce images having excellent color satn., d., and resolu. Thus, an electrophoretic imaging dispersion contg. Isopar G 2.2, Solvesso 1.3, Piccotex 100 1.4, lauryl methacrylate-Li methacrylate-methacrylic acid-vinyltoluene copolymer 0.1, and II 0.45 g was evaluated in a test app. and found to provide an image of good to excellent quality.

ST cyclobutanedione deriv electrophoretic imaging; electrophotosensitive  
 cyclobutanedione deriv  
 IT Ultraviolet and visible spectra  
 (of cyclobutanedione derivs)  
 IT Photography, electro-, color  
 (electrophoretic, imaging dispersions for, contg. electrophotosensitive  
 cyclobutanedione derivs)  
 IT 9017-27-0 62576-76-5  
 RL: USES (Uses)  
 (electrophotosensitive compns. contg. cyclobutanedione derivs and, for  
 electrophoretic migration imaging)  
 IT 12243-46-8 63842-82-0 63842-83-1 68842-56-8 68842-57-9  
 68842-58-0 68842-59-1 68842-60-4 68842-61-5 68842-64-8  
 68842-65-9 68842-66-0 68842-68-2 68842-69-3 72907-64-3  
 72907-65-4 72907-66-5 72907-67-6 72907-68-7 72907-69-8  
 72907-70-1 \*\*\*72907-71-2\*\*\* 72929-33-0 72936-96-0 72936-97-1  
 72936-98-2 72936-99-3 72939-79-8 72952-07-9  
 RL: USES (Uses)  
 (electrophotosensitive compns. contg., for electrophoretic migration  
 imaging)

=> file reg

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CA SUBSCRIBER PRICE	-2.25	-2.25

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 DICTIONARY FILE UPDATES: 16 NOV 2006 HIGHEST RN 913474-36-9

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 SEARCH TIME: 00.00.01

L6 2 SEA SSS FUL L5

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DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-2.25

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=> s l6  
 L7 2 L6

=> d all 1-2

L7 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 2006:1093336 CAPLUS <<LOGINID::20061117>>  
 ED Entered STN: 19 Oct 2006  
 TI Manufacture of cyanine compounds, optical filters and optical recording materials using them  
 IN Aoyama, Yohei; Shigeno, Koichi  
 PA Adeka Corporation, Japan  
 SO PCT Int. Appl., 50pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA Japanese  
 CC 41-11 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)  
 Section cross-reference(s): 74

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2006109618	A1	20061019	WO 2006-JP307093	20060404
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
	RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	JP 2006312710	A2	20061116	JP 2006-4215	20060111
PRAI	JP 2005-108339	A	20050405		
	JP 2006-4215	A	20060111		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
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WO 2006109618 IPCI C09B0023-00 [I,A]; G02B0005-22 [I,A]; G11B0007-244  
[I,A]; G11B0007-24 [I,C\*]  
JP 2006312710 IPCI C09B0023-00 [I,A]; C09K0003-00 [I,A]; G11B0007-244  
[I,A]; G11B0007-24 [I,C\*]  
FTERM 4H056/CA01; 4H056/CB02; 4H056/CB06; 4H056/CC02;  
4H056/CC08; 4H056/CE01; 4H056/CE06; 4H056/DD03;  
4H056/DD26; 4H056/DD30; 4H056/FA05; 5D029/JA04

GI

/ Structure 14 in file .gra /

AB Cyanine compds. represented by the general formula I, II or III [where in I, A1 is an optionally substituted benzene or naphthalene ring; B is a group represented by the general formula IV or V; R1 is hydrogen, halogen, C1-8 alkyl, C1-8 alkoxy, or C6-30 aryl; R2 is a substituent to be further defined in the document; and Y1 is hydrogen, an org. group having 1 to 30 carbon atoms or a substituent to be further defined; where in II and III, A2 is as defined above for A1 in the general formula I; Y4 and Y5 are each independently as defined above for Y1 in the general formula I; X2 is as defined above for X1 in the general formula I; R10 is as defined above for R1 in the general formula I; R11 is as defined for R2 in the general formula I; R23 and R24 are as defined for R21 and R22 in the general formulas IV and V; n is an integer of 0 to 6; the polymethine chain may be substituted; Anq- is a q-valent anion; q is 1 or 2; and p is a coeff. keeping the elec. charge neutral] are prepd. for use in optical filters for, e.g., LCD, and optical recording materials such as DVD.

ST optical filter recording material cyanine compd; DVD recording material cyanine dye; LCD optical filter cyanine dye

IT Cyanine dyes

Liquid crystal displays

Optical filters

Optical recording materials

(manuf. of cyanine compds. for use in optical filters for LCD and optical recording materials)

IT 913081-19-3P 913081-21-7P 913081-22-8P 913081-24-0P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(dye intermediate; manuf. of cyanine compds. for use in optical filters for LCD and optical recording materials)

IT 913081-13-7P \*\*\*913081-14-8P\*\*\* 913081-16-0P

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(dyes; manuf. of cyanine compds. for use in optical filters for LCD and optical recording materials)

IT 91-55-4, 2,3-Dimethylindole 603-76-9, 1-Methylindole 2892-62-8

100716-80-1, Phenoxyethyl 4-chlorobenzenesulfonate 162382-19-6,  
(4-Iodobutyl)ferrocene

RL: RCT (Reactant); RACT (Reactant or reagent)

(manuf. of cyanine compds. for use in optical filters for LCD and optical recording materials)

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

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- (2) Asahi Denka Kogyo Kabushiki Kaisha; US 2003224293 A1 2001
- (3) Asahi Denka Kogyo Kabushiki Kaisha; WO 2006035555 A1 2006 CAPLUS
- (4) Canon Inc; JP 61-126555 A 1986 CAPLUS
- (5) Taiyo Yuden Co Ltd; JP 2004195765 A 2004 CAPLUS
- (6) Tamura Kaken Kabushiki Kaisha; JP 2003171571 A 2003 CAPLUS

L7 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1988:539163 CAPLUS <<LOGINID::20061117>>

DN 109:139163

ED Entered STN: 14 Oct 1988

TI Dye-sensitized photographic imaging system

IN Farid, Samir Y.; Haley, Neil F.; Moody, Roger E.; Specht, Donald P.

PA Eastman Kodak Co., USA

SO U.S., 25 pp.

CODEN: USXXAM

DT Patent  
LA English  
IC ICM G03C001-72  
INCL 430281000  
CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reprographic Processes)  
Section cross-reference(s): 41.

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4743531	A	19880510	US 1986-933712	19861121
	CA 1329042	A1	19940503	CA 1987-547870	19870925
	JP 63138345	A2	19880610	JP 1987-292194	19871120
	EP 269397	A2	19880601	EP 1987-310306	19871123
	EP 269397	A3	19881207		
	R: DE, FR, GB				
PRAI	US 1986-933658	A	19861121		
	US 1986-933660	A	19861121		
	US 1986-933712	A	19861121		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 4743531	ICM	G03C001-72
	INCL	430281000
	IPCI	G03C0001-72 [ICM,4]
	IPCR	G03C0001-00 [I,C*]; G03C0001-00 [I,A]; C08F0002-46 [I,C*]; C08F0002-50 [I,A]; G03F0007-00 [I,C*]; G03F0007-00 [I,A]; G03F0007-031 [I,C*]; G03F0007-031 [I,A]
	NCL	430/281.100; 430/286.100; 430/287.100; 430/919.000; 430/920.000; 522/025.000
CA 1329042	IPCI	G03C0001-72 [ICM,5]; G03F0007-028 [ICS,5]; G03F0007-008 [ICS,5]
	IPCR	G03C0001-00 [I,C*]; G03C0001-00 [I,A]; C08F0002-46 [I,C*]; C08F0002-50 [I,A]; G03F0007-00 [I,C*]; G03F0007-00 [I,A]; G03F0007-031 [I,C*]; G03F0007-031 [I,A]
JP 63138345	IPCI	G03C0001-68 [ICM,4]; C08F0002-50 [ICS,4]; C08F0002-46 [ICS,4,C*]; G03C0001-00 [ICS,4]
	IPCR	G03F0007-00 [I,A]; G03F0007-00 [I,C*]; G03F0007-031 [I,A]; G03F0007-031 [I,C*]
EP 269397	IPCI	G03C0001-68 [ICM,4]; G03F0007-10 [ICS,4]
	IPCR	C07D0311-00 [I,C*]; C07D0311-16 [I,A]; G03F0007-00 [I,A]; G03F0007-00 [I,C*]; G03F0007-031 [I,A]; G03F0007-031 [I,C*]

GI

/ Structure 15 in file .gra /

AB A photog. imaging system is disclosed comprising an imaging dye or a precursor thereof, a hardenable org. component contg. ethylenic unsatn. sites and capable of imagewise modulating mobility of the dye or dye precursor as a function of addn. at the sites of ethylenic unsatn., and cointiators for ethylenic addn. The cointiators include an azinium salt activator and a photosensitizer which is a dye exhibiting a redn. potential which in relation to that of the ionized azinium salt activator is .ltoreq.0.1 V more pos., and when the photosensitizer is a keto dye having its principal absorption peak at a wavelength <550 nm, it exhibits when excited by imaging radiation and intersystem crossing efficiency to a triplet state of <10%. The system produces primary dye images efficiently with radiation of any desired wavelength in the visible spectrum and can exhibit sensitivity extending into near IR region. Thus, a compn. contg. Ph 1,2,4-tri(2-acryloyloxy Et carboxylate), 2-acryloyloxy Et benzoate, 1-methoxy-4-Ph pyridinium tetrafluoroborate (redn. potential-0.75 V), and I (.lambda.max 430 nm, redn. potential -1.45 V) was highly effective in forming images.

ST photoimaging compn dye sensitized; redn potential dye image

IT Photoimaging compositions and processes

(color, dye-sensitized, redn. potential in relation to)

IT Polymerization catalysts

(photoimaging compn. contg., redn. potential in relation to)

IT Dyes  
(photosensitizer, for imaging compn., redn. potential in relation to)

IT Electric potential  
(redn., of dyes and activators, for photoimaging compn.)

IT 15622-80-7 39144-57-5  
RL: USES (Uses)  
(photoimaging compn. contg., dye-sensitized)

IT 65-61-2 92-32-0 117-92-0 514-73-8 550-15-2 634-21-9 977-96-8  
989-38-8 2156-29-8 2768-90-3 3065-70-1 3065-71-2 3071-70-3  
4727-50-8 14238-43-8 14238-53-0 14806-50-9 15185-43-0 17636-07-6  
19764-96-6 23178-67-8 23857-69-4 24796-94-9 25470-94-4  
27425-55-4 36437-64-6 36536-22-8 38215-36-0 41044-12-6  
41387-42-2 41830-81-3 53213-82-4 53213-85-7 53332-41-5  
54290-14-1 54797-03-4 54854-14-7 60311-02-6 61105-56-4  
61526-53-2 62669-60-7 62669-62-9 68818-86-0 80566-27-4  
94564-82-6 94564-93-9 98766-45-1 100301-28-8 100834-48-8  
100834-63-7 105802-46-8 114720-33-1 116450-20-5 116450-21-6  
116450-22-7 116450-23-8 116450-24-9 116450-26-1 116450-28-3  
116450-29-4 116450-30-7 116450-31-8 116450-33-0 116450-36-3  
116450-37-4 116450-38-5 116450-39-6 116450-40-9 116450-41-0  
116450-42-1 116450-44-3 116450-45-4 116450-46-5 116450-47-6  
116450-48-7 116450-49-8 116450-50-1 116450-51-2 116450-52-3  
116450-53-4 116450-54-5 116450-56-7 116450-58-9 116450-60-3  
116477-15-7 116477-16-8 \*\*\*116477-17-9\*\*\*  
RL: USES (Uses)  
(photosensitizer, in photoimaging compn. redn. potential in relation to)

IT 96-66-2 63123-42-2 116450-61-4 116450-62-5 116450-64-7  
116450-65-8 116450-67-0 116450-68-1 116450-70-5 116450-72-7  
116450-74-9 116477-18-0  
RL: CAT (Catalyst use); USES (Uses)  
(polymn. catalyst, photoimaging compn. contg., redn. potential in relation to)

IT 116450-32-9P 116450-34-1P 116450-35-2P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. and use of, as photosensitizer in photoimaging compn., redn. potential in relation to)

IT 10258-72-7 16002-30-5 17754-90-4, 4-Diethylaminosalicylaldehyde  
116450-75-0  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, coumarin dye from)

=> d his

(FILE 'HOME' ENTERED AT 13:34:02 ON 17 NOV 2006)

FILE 'CAPLUS' ENTERED AT 13:34:16 ON 17 NOV 2006  
L1 1 S US 2004-0197705/PN

FILE 'REGISTRY' ENTERED AT 13:34:51 ON 17 NOV 2006

FILE 'CAPLUS' ENTERED AT 13:34:58 ON 17 NOV 2006  
L2 TRA L1 1- RN : 11 TERMS

FILE 'REGISTRY' ENTERED AT 13:34:58 ON 17 NOV 2006  
L3 11 SEA L2

FILE 'CAPLUS' ENTERED AT 13:35:32 ON 17 NOV 2006  
L4 3 S L3

FILE 'REGISTRY' ENTERED AT 13:36:04 ON 17 NOV 2006  
L5 STRUCTURE UPLOADED  
L6 2 S L5 SSS FULL

FILE 'CAPLUS' ENTERED AT 13:36:41 ON 17 NOV 2006  
L7 2 S L6

=> log y

COST IN U.S. DOLLARS

SINCE FILE  
ENTRY

TOTAL  
SESSION

FULL ESTIMATED COST	6.60	198.02
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-1.50	-3.75

STN INTERNATIONAL LOGOFF AT 13:37:17 ON 17 NOV 2006